

**CLAIMS**

1. Device for monitoring the application of a motor vehicle automatic parking brake, comprising driven  
5 means (10) of applying at least one brake pad (2) to a brake disk (1), characterized in that it comprises measurement means (5) for measuring a physical property of the pad (2), the value of which varies as a function of the force with which the pad is applied to the brake  
10 disk (1).

2. Device according to Claim 1, characterized in that it comprises comparison means (9) for comparing the measured values of said property with prerecorded  
15 values, these comparison means (9) being connected to means (10) for commanding application of the brake.

3. Device according to Claim 1 or 2, characterized in that said physical property is an electrical magnitude  
20 associated with the conductivity or resistivity of the brake pad (2) and in particular of its friction lining (3).

4. Device according to one of the preceding claims,  
25 characterized in that the material of the friction lining (3) of the pad (2) contains an addition of an electrically conducting component (C) in granular or powder form, such as copper or carbon black for example.  
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5. Device according to one of Claims 1. to 3, characterized in that the friction lining (3) of the brake pad (2) comprises a wear indicator (11) formed of an electrically conducting element embedded in the  
35 friction lining (3) and in that an electrically conducting component (C) in granular or powder form is added to the material of the friction lining (3) solely between the wear indicator (11) and a backing (4) to which the friction lining (3) is attached.

6. Device according to one of the preceding claims,  
characterized in that it comprises a measurement  
apparatus (5), such as a volt meter for example, and an  
5 electrical supply circuit (6) which are electrically  
connected to the friction lining (3) of the brake pad  
(2) and to a metal component such as the brake disk (1)  
or a backing (4) of the friction lining (3) or to the  
vehicle electrical ground.

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7. Method for monitoring application of a motor  
vehicle automatic parking brake comprising driven means  
of applying at least one brake pad (2) to a brake disk  
(1) mounted on a wheel of the vehicle, characterized in  
15 that it essentially consists, following a command to  
apply the automatic parking brake, in measuring a  
physical property of the brake pad that varies as a  
function of the force with which this pad is applied to  
the brake disk (1), in comparing the measurement with a  
20 prerecorded value and, if the measurement is below the  
prerecorded value, in once again commanding the  
application of the parking brake and/or in emitting a  
signal for the attention of the driver of the vehicle.

25 8. Method according to Claim 7, characterized in that  
it consists in measuring said property of the brake pad  
(2) at different instants following a command to apply  
the parking brake, in comparing measured values with  
corresponding prerecorded values and in once again  
30 commanding the application of the parking brake if at  
least one of the measured values is below the  
corresponding prerecorded value.

9. Method according to Claim 8, characterized in that  
35 it consists in measuring an initial value of said  
property before the parking brake is applied, another  
value of this property while the brake is being applied  
by the driven application means, another value of this  
property following mechanical locking of the brake and

return of the application means to the position of rest.

10. Method according to Claim 9, characterized in that  
5 it further involves a subsequent step of measuring said  
property as the brake cools.

11. Method according to Claim 8, 9 or 10,  
characterized in that it consists in comparing  
10 differences and/or ratios of the measured values of  
said property with differences and/or ratios of the  
corresponding prerecorded values.

12. Method according to one of Claims 8 to 11,  
15 characterized in that it consists in measuring an  
electrical magnitude associated with the conductivity  
or electrical resistivity of the brake pad (2) or of  
its friction lining (3).